

CLAIMS

1. A camera head comprising

- a light-sensor array (1) having light-sensitive elements (211, 212, ..., 221, 222...) arranged in a plurality of element lines (21, 22, ...),
- element readout means (4, 9) connected to said light-sensor array (1) for outputting a signal representative of a quantity of light received by elements of a number of contiguous element lines,

characterised in that

said readout means (4, 9) is adapted to selectively set the number of element lines to $5 \cdot n$ or $6 \cdot n$, n being an integer.

2. The camera head of claim 1, wherein the number of element lines is 1440 or an integer multiple thereof.

3. The camera head of claim 1 or 2, wherein the light-sensor array (1) is a charge-coupled device.

4. The camera head of claim 3, wherein the light sensor array (1) further comprises element lines formed of light-insensitive elements.

5. The camera head of claim 3 or 4, wherein said light-sensitive elements are further arranged in a plurality of columns (2-1, 2-2, ...) and said readout means (4, 9) comprise s at least one shift register having a register cell connected to each of said columns for receiving a photocharge accumulated in light-sensitive elements of said column, and a drive circuit for displacing the photocharge along the columns towards the shift register,

6. The camera head of claim 5, wherein the drive circuit is adapted to accumulate photocharges from a plural number of light-sensitive elements in one register cell.

7. The camera head of claim 6, wherein the element readout means comprise at least one electrode connected to each element line, a clock generator for cyclically applying a potential to said electrodes which is effective to displace an electrical charge from one element line to an adjacent element line and from a last one of said element lines to the register cells of said at least one shift register, and shift register driving means for serially outputting charges contained in each of said shift register cells, and wherein the shift register driving means are adapted to output said charges once in a selected plural number of cycles of said clock generator.

8. The camera head of claim 7, wherein the clock generator is further adapted to apply a potential for displacing charges from a first element line to an adjacent second element line while keeping in place charges present in said second element line.

9. The camera head of claim 8, wherein light insensitive element lines are arranged as a block between a block comprising the light sensitive element lines, on the one hand, and said first element line is a light sensitive element line and the second element line is a light-insensitive element line.

10. The camera head of claim 5, further comprising an adding circuit connected to the output of said at least one shift register for adding charges output from a selected plural number of light-sensitive elements of a same column.

11. The camera head of claim 10, wherein the number of shift registers is six.

12. The camera head of claim 6 or 7, wherein the plural number is selected among 5 and 6.

13. The camera head of claim 1, wherein the light-sensor array (1) is a CMOS device.

14. A method of obtaining an NTSC image signal from a light-sensor array (1) having light-sensitive elements (211, 212, ..., 221, 222, ...) arranged in a plurality of element lines (21, 22, ...), wherein an image line signal representative of a quantity of light received by elements of a number of contiguous element lines is formed and the NTSC image signal is derived from said image line signal, characterised in that the number is $6 \cdot n$, n being an integer.

15. A method of obtaining a PAL or SECAM image signal from a light-sensor array having light-sensitive elements (211, 212, ..., 221, 222, ...) arranged in a plurality of element lines (21, 22, ...), wherein an image line signal representative of a quantity of light received by elements of a number of contiguous element lines is formed and the PAL or SECAM image signal is derived from said image line signal, characterised in that the number is $5 \cdot n$, n being an integer.

16. A method of obtaining an NTSC image signal from a light-sensor array having light-sensitive elements (211, 212, ..., 221, 222, ...) arranged in a plurality of element lines (21, 22, ...), wherein an image line signal representative of a quantity of light received by elements of a number of contiguous element lines is formed and the NTSC signal is derived from said image line signal, characterised in that the number is $3 \cdot n$, n being an integer.

17. A camera head comprising :

- a light-sensor array (1) comprising light-sensitive elements (211, 212, ..., 221, 222, ...) arranged as a matrix having $1440 \cdot i \cdot j$ element lines (21, 22, ...), i and j being integers,

- readout means (4, 9) operable in a first mode to generate a first video signal having $240 \cdot i$ signal lines, each line being generated from light-sensitive elements of $6 \cdot j$ adjacent element lines, and in a second mode to generate a second video signal having $288 \cdot i$ signal lines, each line being generated from light-sensitive elements of $5 \cdot j$ adjacent element lines.

18. The camera head of claim 17, wherein control means allows to select operation of the readout means in a mode of a list of modes comprising the first mode and the second mode.

- 5 19. A camera head comprising :
- a light-sensor array (1) comprising light-sensitive elements (211, 212, ..., 221, 222, ...) arranged as a matrix having a number of element lines (21, 22, ...) between 1440.i.j and 1458.i.j, i and j being integers.
 - readout means (4, 9) operable in a first mode to generate a first video signal
 - 10 having 240.i or 241.i or 242.i or 243.i signal lines, each line being generated from light-sensitive elements of 6.j adjacent element lines, and in a second mode to generate a second video signal having 288.i signal lines, each line being generated from light-sensitive elements of 5.j adjacent element lines.

- 15 20. The camera head of claim 19, wherein control means allows to select operation of the readout means in a mode of a list of modes comprising the first mode and the second mode.